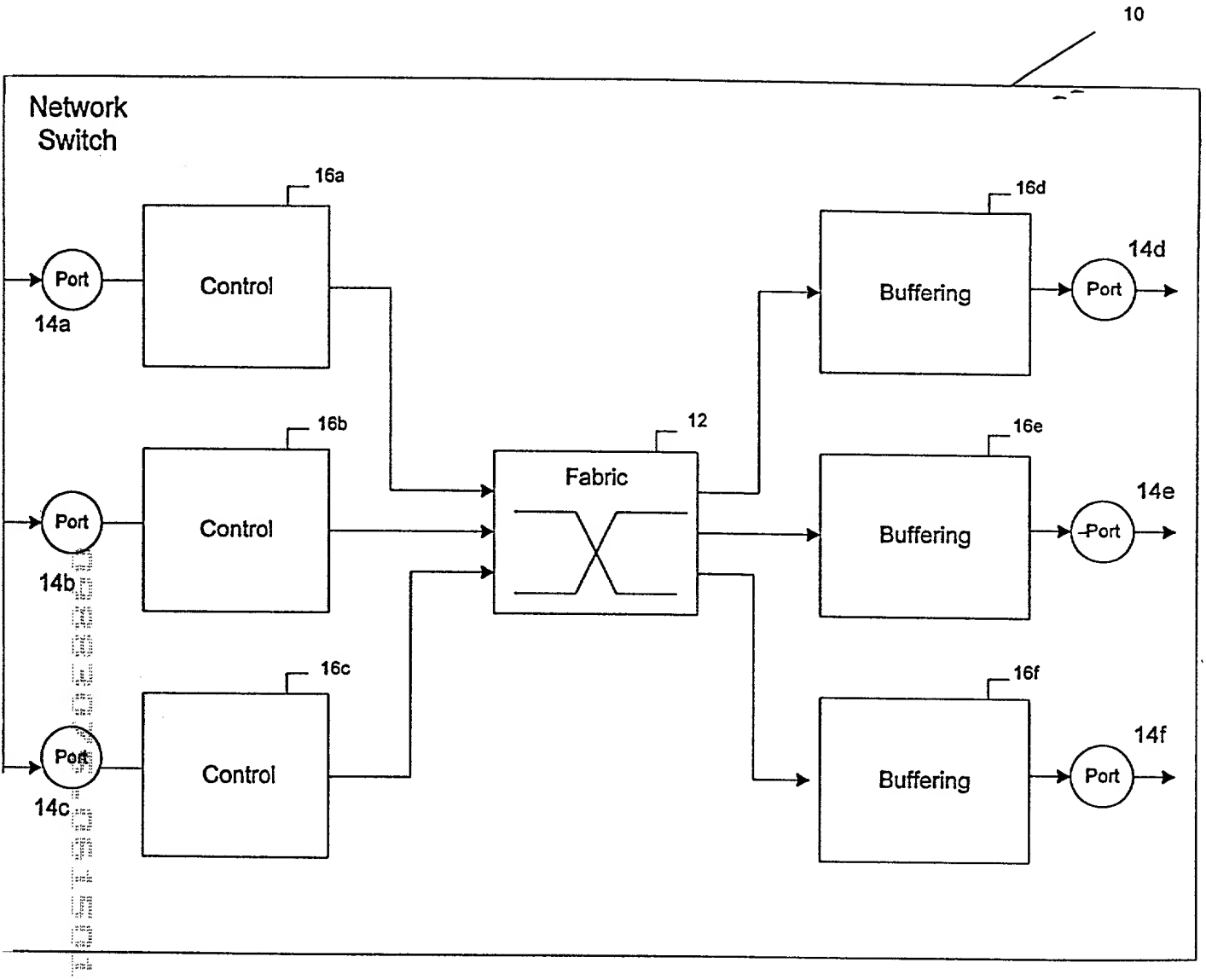

FIG. 1 (Prior Art)

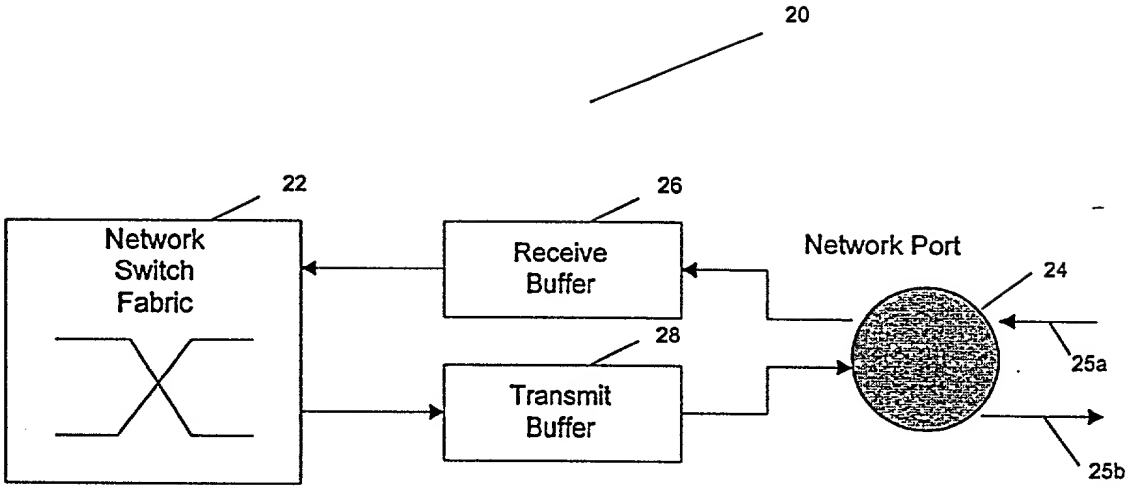

FIG. 2 (Prior Art)

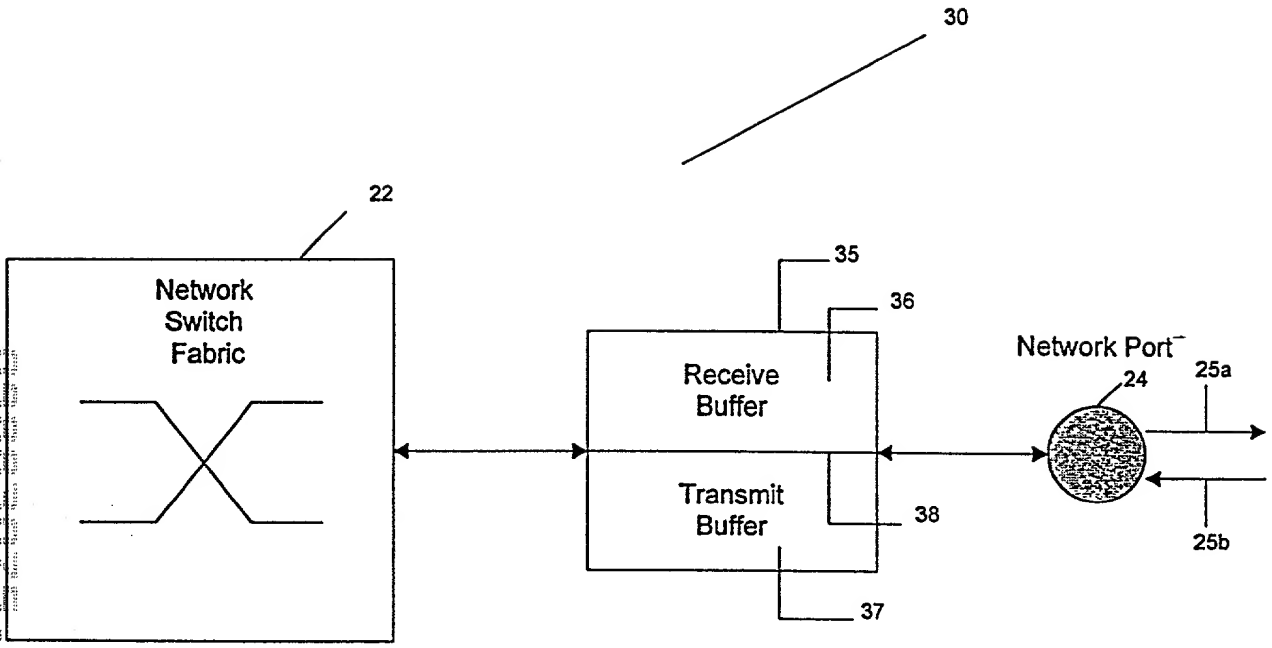

FIG. 3 (Prior Art)

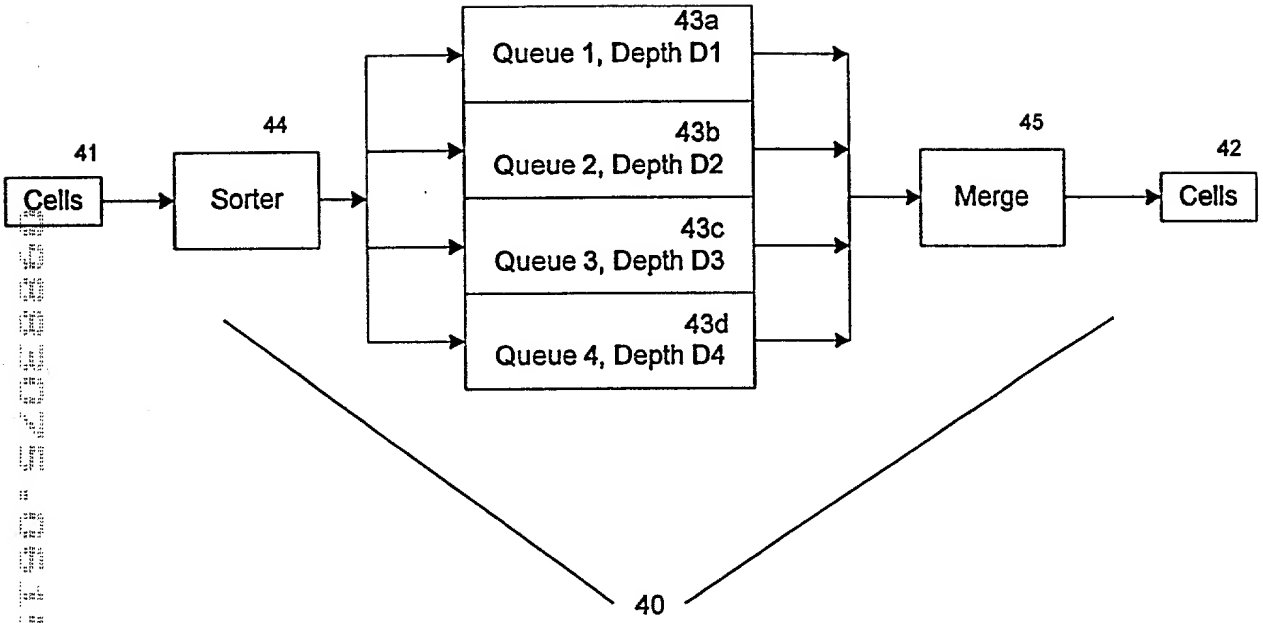
41
Cells
44
Sorter
43a
Queue 1, Depth D1
43b
Queue 2, Depth D2
43c
Queue 3, Depth D3
43d
Queue 4, Depth D4
45
Merge
42
Cells
40

FIG. 4

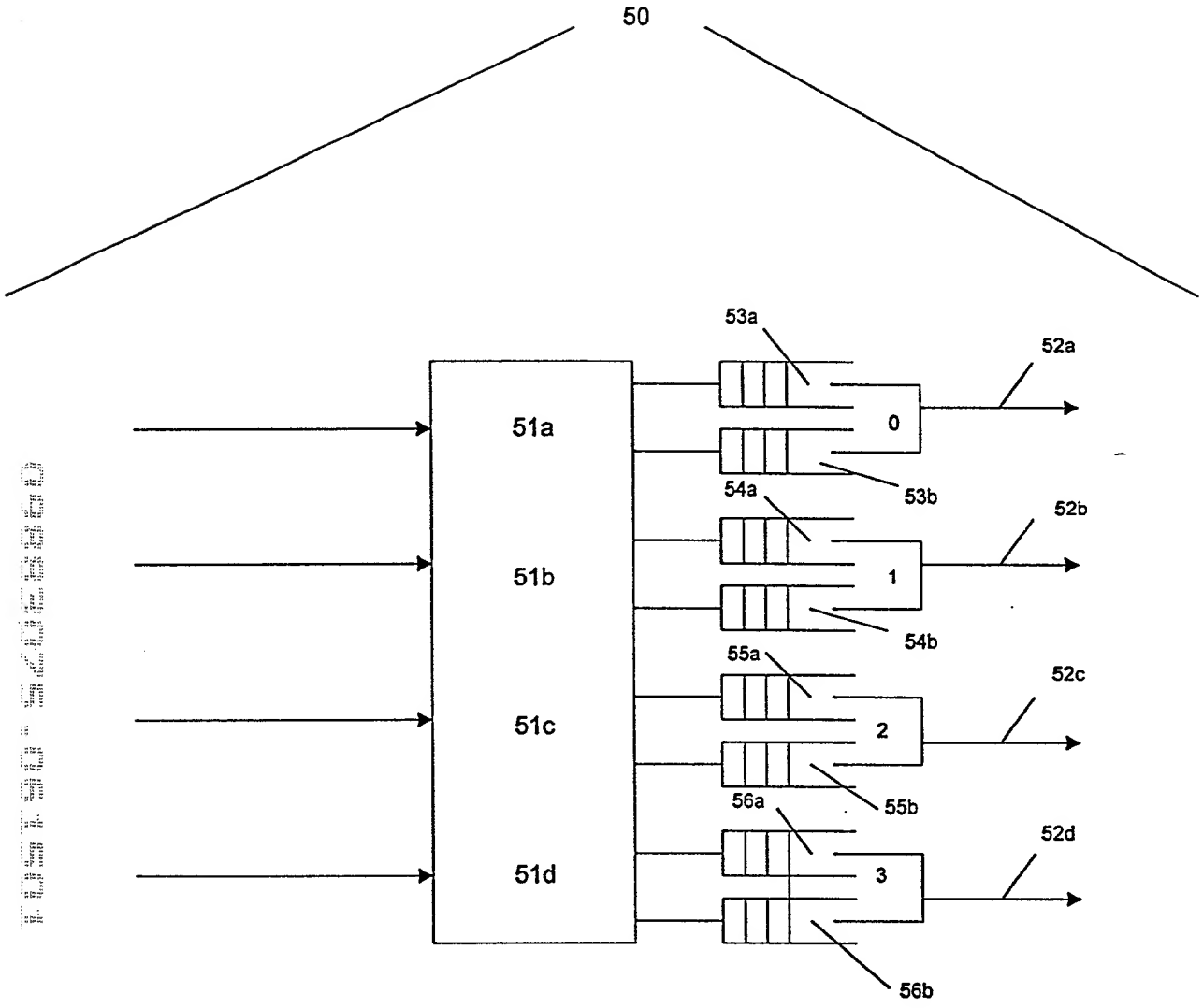
50
53a
52a
51a
0
53b
54a
52b
51b
1
54b
55a
52c
51c
2
55b
56a
52d
51d
3
56b

FIG. 5

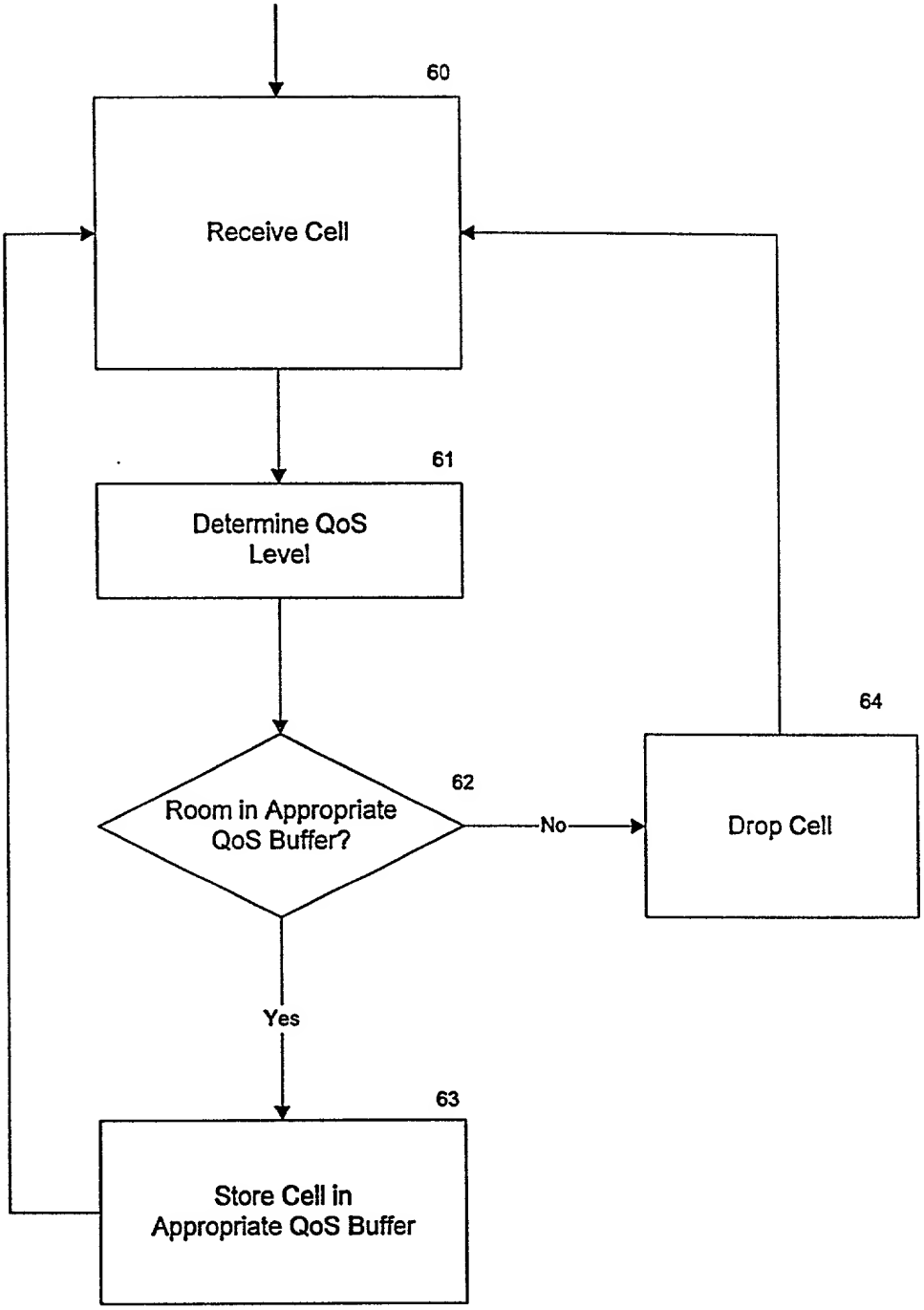
60
Receive Cell
61
Determine QoS Level
62
Room in Appropriate QoS Buffer?
No
64
Drop Cell
Yes
63
Store Cell in Appropriate QoS Buffer

FIG. 6

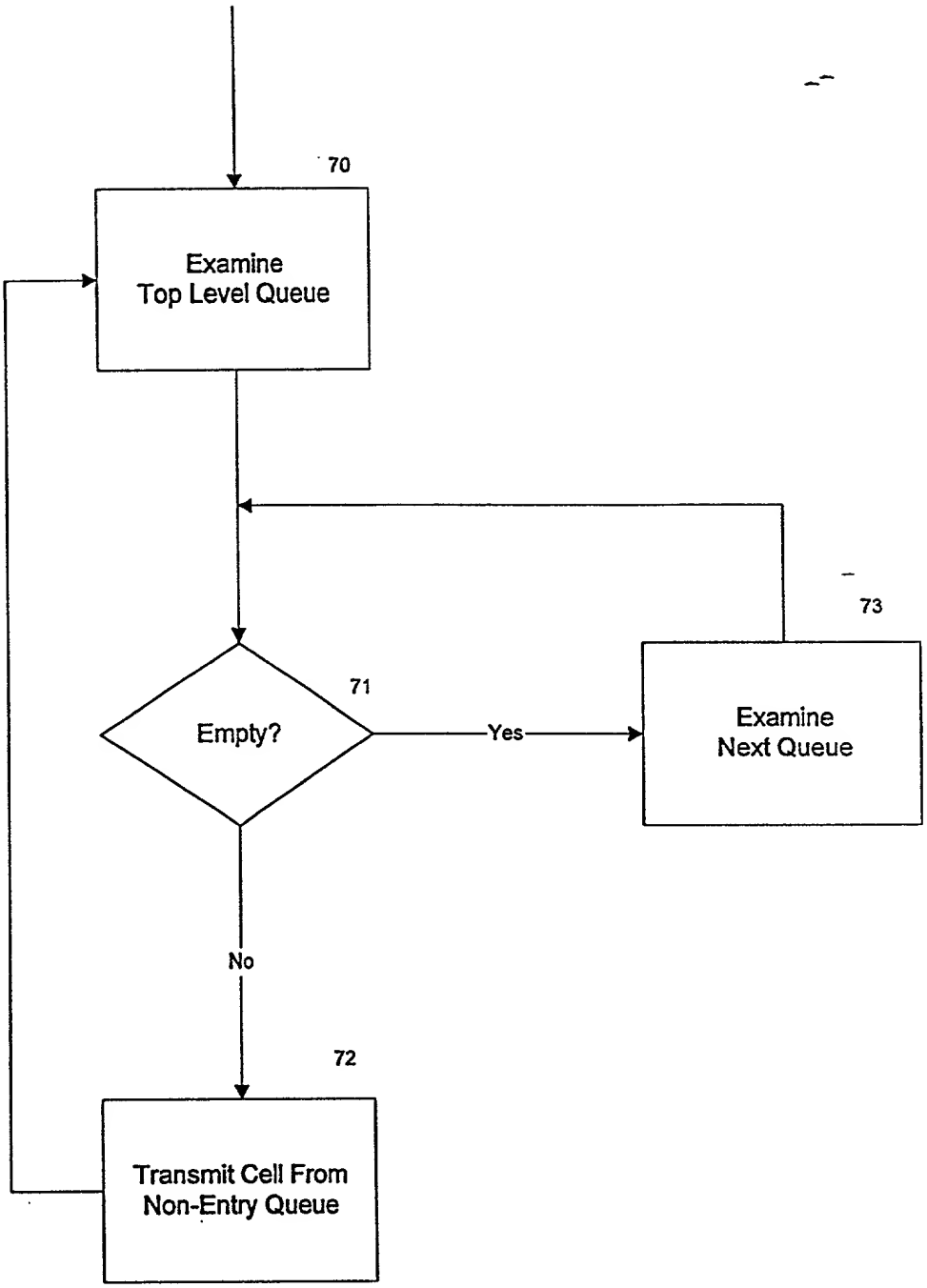
70
Examine
Top Level Queue
73
71
Empty?
Yes
Examine
Next Queue
No
72
Transmit Cell From
Non-Entry Queue

FIG. 7

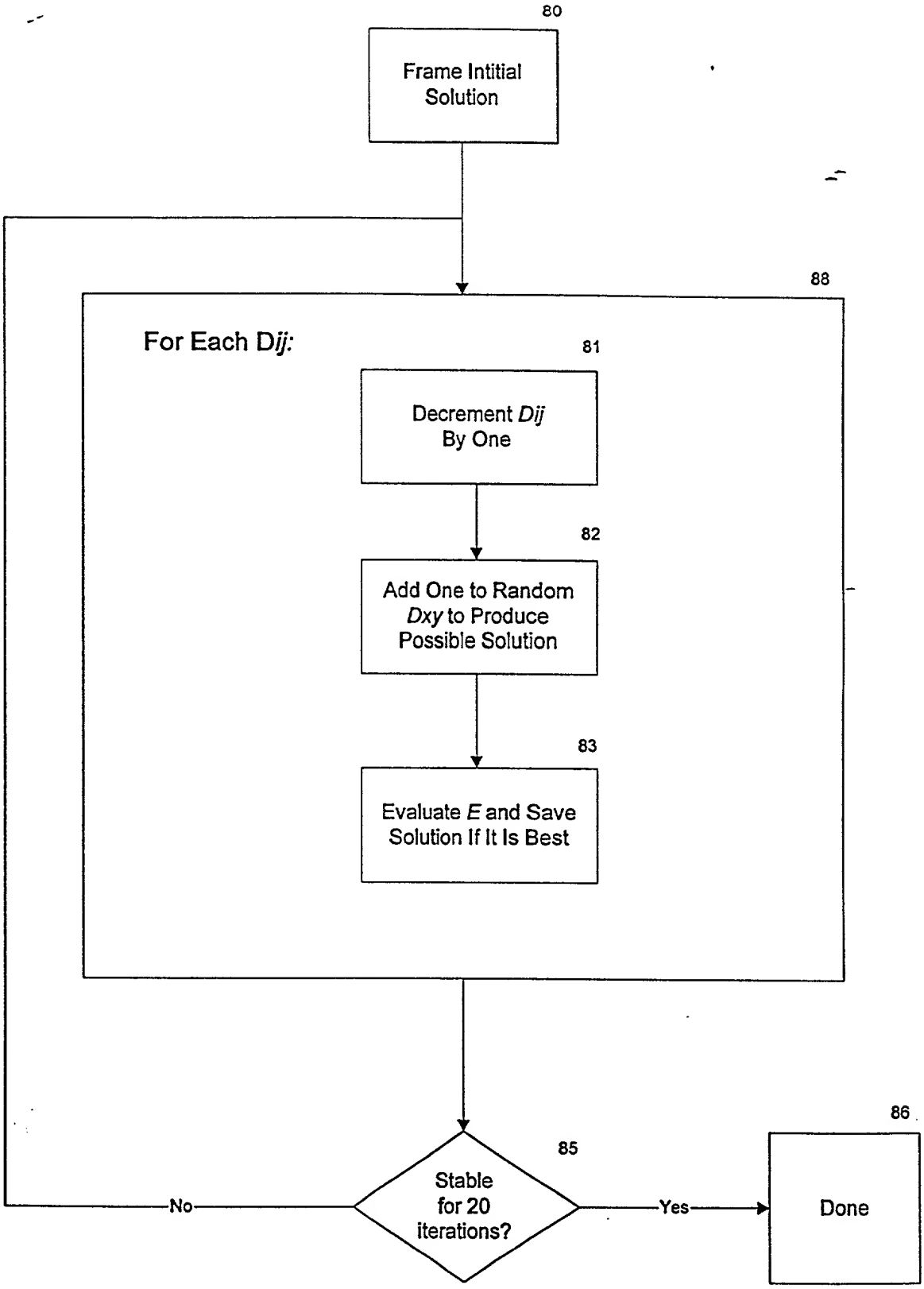
80
Frame Intitial Solution
88
For Each Dij:
81
Decrement Dij By One
82
Add One to Random Dxy to Produce Possible Solution
83
Evaluate E and Save Solution If It Is Best
86
85
Stable for 20 iterations?
No
Yes
Done

FIG. 8

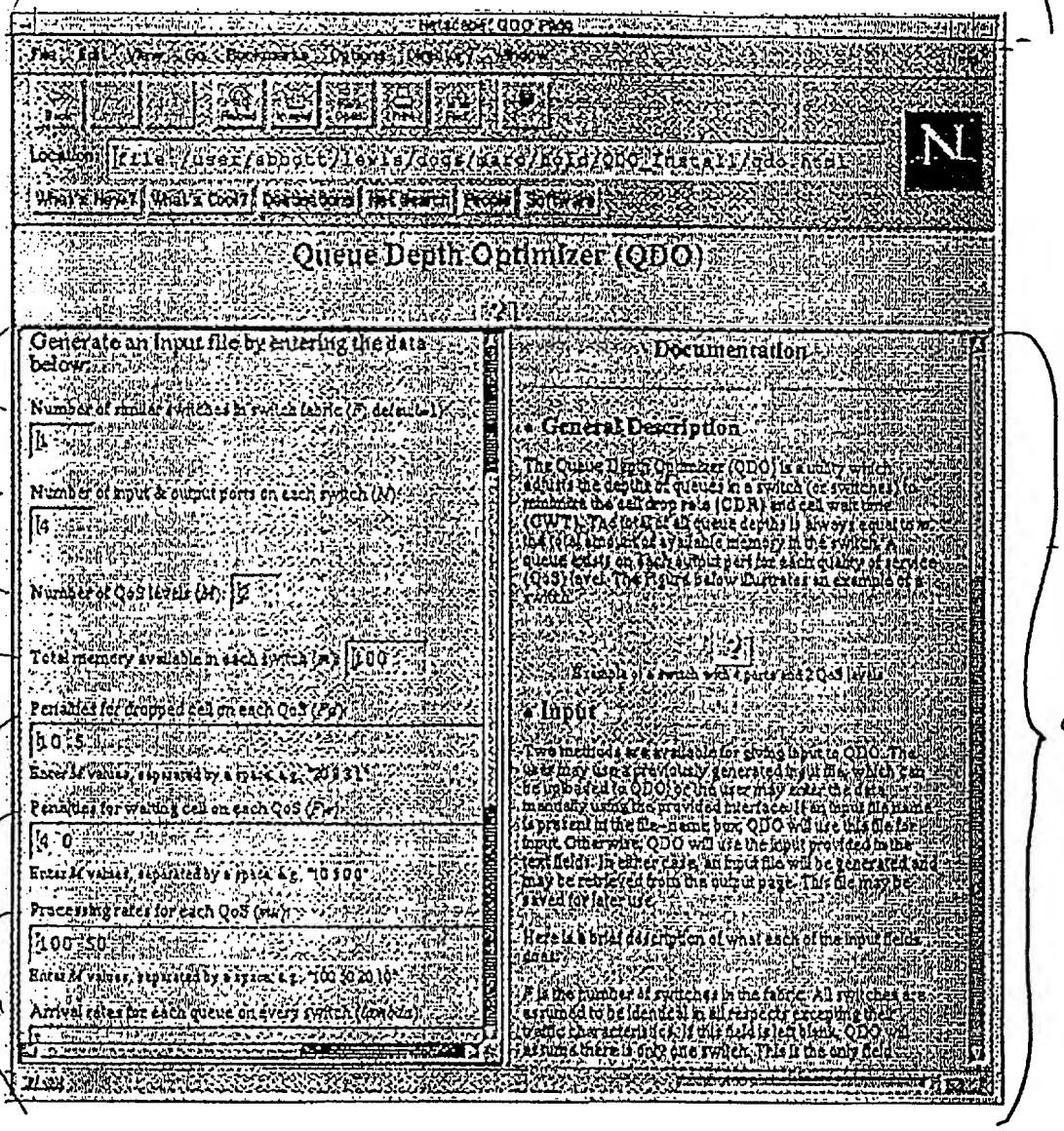

Figure 3. The Queue Depth Optimizer GUI

FIG. 9

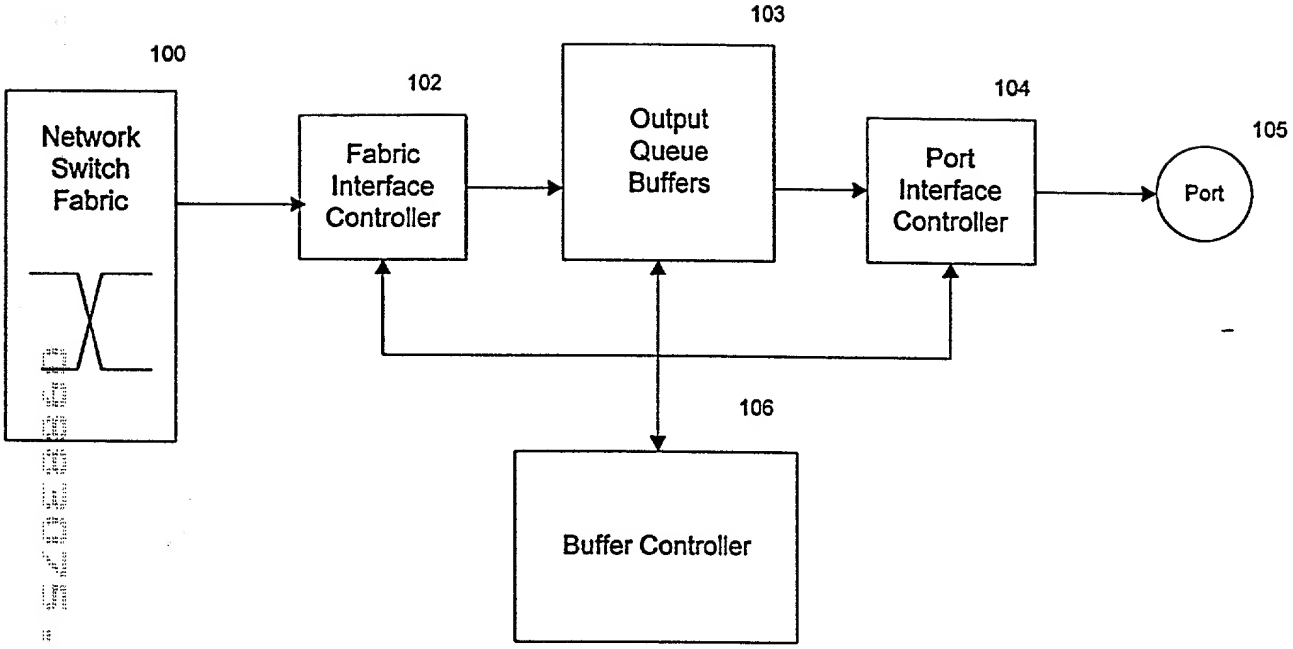
100
Network Switch Fabric
102
Fabric Interface Controller
103
Output Queue Buffers
104
Port Interface Controller
105
Port
106
Buffer Controller

FIG. 10

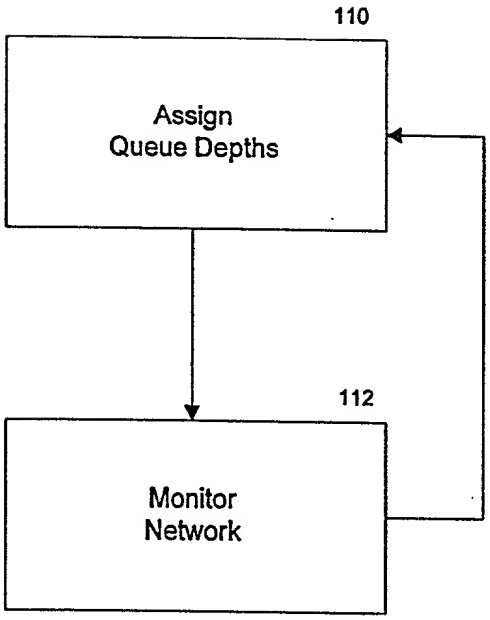

FIG. 11